

LISTINGS OF THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A housing having a liquid-tight electric bushing comprising:
an opening in the housing of an X-ray tube, wherein a coolant oil is circulated through the housing at an overpressure to cool the X-ray tube during operation thereof;

a printed circuit board mounted to the housing and having at least first and second layers, the at least first and second layers being configured without a continuous opening such that the printed circuit board is a liquid-tight closure that prevents the coolant oil from flowing outside of the housing, the first layer being produced from an electrical insulation material and being a top side of the printed circuit board that spans the opening and the second layer being a conductor track in the interior of the printed circuit board, wherein a first contact element is disposed on the top side and in a bore through the first layer that extends to at least the second layer;

a seal disposed around the opening in the housing and between the printed circuit board and the housing; and

a pressure plate that contacts an underside of the printed circuit board and is mounted on the housing such that the pressure plate presses the first layer of the printed circuit board against the seal around the opening in the housing such that the first layer of the printed circuit board forms the liquid tight closure that prevents the coolant oil from flowing out the opening in the housing.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Previously Presented) The housing as defined by claim 1, wherein the first contact element is coupled to a second contact element via the second layer.

6. (Cancelled)

7. (Previously Presented) The housing as defined by claim 5, wherein the second contact element is on the underside that is opposite the top side.

8. (Previously Presented) The housing as defined by claim 5, wherein the second contact element extends to an outside an edge of the printed circuit board.

9. (Previously Presented) The housing as defined by claim 1, wherein the printed circuit board is flexible.

10. (Previously Presented) The housing as defined by claim 1, wherein the printed circuit board comprises a plurality of second layers, located one above the other.

11. (Previously Presented) The housing as defined by claim 5, wherein the first contact element and the second contact element are coupled via a plurality of conductor tracks, which are located one above the other and are electrically coupled.

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Currently Amended) A method of using a printed circuit board to close an opening provided in a housing and as an electric bushing, the method comprising:

disposing a seal around the opening in the housing and between the printed circuit board and the housing,

disposing a pressure plate that contacts an underside of the printed circuit board to press the printed circuit board against the seal around the opening in the housing,

mounting the printed circuit board comprising a first layer on the housing of an X-ray tube, wherein a coolant oil is circulated through the housing at an overpressure to cool the X-ray tube during operation thereof, the printed circuit board having no continuous opening such that the printed circuit board is a liquid-tight closure that prevents the coolant oil from flowing to the outside of the housing, wherein the first layer spans the opening, is the top side of the printed circuit board and is produced from an electrical insulation material, and

disposing a first contact element on the top side and through a bore in the top side, wherein the bore extends to at least a second layer formed in the printed circuit board, the second layer being a conductor track,

wherein mounting the printed circuit board comprises mounting the pressure plate on the housing such that the pressure plate presses the first layer of the printed circuit board against the seal around the opening such that the first layer of the printed circuit board forms the liquid-tight closure that prevents the coolant oil from flowing out of the opening in the housing.

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Previously Presented) The method as defined by claim 15, wherein the method further comprises connecting the first contact element to a second contact element via the second layer.

20. (Cancelled)

21. (Previously Presented) The method as defined by claim 19, wherein the method further comprises disposing the second contact element on the underside that is opposite the top side.

22. (Previously Presented) The method as defined by claim 19, wherein the method further comprises extending the second contact element to an outside edge of the printed circuit board.

23. (Previously Presented) The method as defined by claim 15, wherein the method further comprises using the printed circuit board that is flexible.

24. (Previously Presented) The method as defined by claim 15, wherein the method comprises using the printed circuit board that has a plurality of second layers located one above the other

25. (Previously Presented) The method as defined by claim 24, wherein the first contact element and a second contact element are connected via a plurality of conductor tracks in alignment with each other.

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)